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**AIR QUALITY BUREAU**  
**NEW SOURCE REVIEW PERMIT**  
**Issued under 20.2.72 NMAC**

Certified Mail No: **Draft March 25, 2022**  
Return Receipt Requested

**NSR Permit No:** 0001-M11  
**Facility Name:** Dagger Draw Gas Plant  
**Permittee Name:** Frontier Field Services, LLC  
**Mailing Address:** 10077 Grogans Mill Road, Suite 300  
The Woodlands, TX 77380  
**TEMPO/IDEA ID No:** 211-PRN20220001  
**AIRS No:** 35-015-0024  
**Permitting Action:** Significant Permit Revision  
**Source Classification:** Synthetic Minor > 80  
**Facility Location:** 551,933 m E by 3,619,808 m N, Zone 13; Datum  
NAD83  
**County:** Eddy  
**Main AQB Phone No.** (505) 476-4300

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**Liz Bisbey-Kuehn**  
**Bureau Chief**  
**Air Quality Bureau**

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**Date**

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## TABLE OF CONTENTS

Part A	FACILITY SPECIFIC REQUIREMENTS .....	A3
A100	Introduction.....	A3
A101	Permit Duration (expiration).....	A3
A102	Facility: Description.....	A3
A103	Facility: Applicable Regulations.....	A4
A104	Facility: Regulated Sources .....	A6
A105	Facility: Control Equipment .....	A7
A106	Facility: Allowable Emissions .....	A8
A107	Facility: Allowable Startup, Shutdown, & Maintenance (SSM) and Malfunction Emissions .....	A9
A108	Facility: Allowable Operations .....	A11
A109	Facility: Reporting Schedules .....	A11
A110	Facility: Fuel and Fuel Sulfur Requirements .....	A11
A111	Facility: 20.2.61 NMAC Opacity.....	A12
A112	Facility: Haul Roads – Not Required.....	A13
A113	Facility: Initial Location Requirements – Not Required.....	A13
A114	Facility: Relocation Requirements.....	A13
A115	Alternative Operating Scenario.....	A13
A116	Compliance Plan – Not Required .....	A13
A117	Governing Requirements During Source Construction, Source Removal, and/or Change in Emissions Control - Not Required.....	A13
	EQUIPMENT SPECIFIC REQUIREMENTS .....	A13
	Oil and Gas Industry .....	A13
A200	Oil and Gas Industry .....	A13
A201	Engines.....	A13
A202	Glycol Dehydrators .....	A16
A203	Tanks – Not Required .....	A17
A204	Heaters/Boilers.....	A17
A205	Turbines – Not Required.....	A19
A206	Flares .....	A19
A207	Sulfur Recovery Unit – Not Required .....	A24
A208	Amine Unit.....	A24
A209	Fugitives.....	A25
A210	Acid Gas Injection .....	A26
A211	Miscellaneous .....	A28

**PART B      GENERAL CONDITIONS (Attached)****PART C      MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)**

**PART A      FACILITY SPECIFIC REQUIREMENTS****A100   Introduction**

- A. This permit, NSR 0001-M10, supersedes all portions of Air Quality Permit 0001-M7R1, issued June 20, 2013, except portions requiring compliance tests. Compliance test conditions from previous permits, if not completed, are still in effect, in addition to compliance test requirements contained in this permit.
- B. Fee Requirement: This permit is not effective until the Department receives the permit fee specified in the attached invoice. Pursuant to 20.2.75.12 NMAC, the permittee shall pay this invoice no later than thirty (30) days after the permit issue date (invoicing), unless the Department has granted an extension. The permit fee must be paid by this date regardless of the permittee's intended use or non-use of the permit or of the Department's cancellation of the permit. The permittee's failure to pay this fee when due will automatically void the permit and the Department may initiate enforcement action to collect the fee and assess a civil penalty for non-payment. The permittee shall not construct the new equipment in Table 104.A. before the date that the Department receives the permit fee in full. The Department may initiate enforcement action for injunctive relief and civil penalties for any construction or operation specified of the new equipment if the permit fee is not paid by the due date.
- C. This permit includes Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) requirements that were imposed in accordance with the PSD permit regulation 20.2.74 NMAC (Permit PSD-NM-753-M2). Any revision of any BACT requirement(s) must first be approved by the Department through a new source review permit application that includes a BACT re-evaluation consistent with 20.2.74 NMAC. Removal of any existing BACT requirement(s) also requires Department approval through an appropriate permit application.

**A101   Permit Duration (expiration)**

- A. The term of this permit is permanent unless withdrawn or cancelled by the Department.

**A102   Facility: Description**

- A. The function of the facility is to sweeten natural gas by removing hydrogen sulfide, mercaptans, and carbon dioxide (acid gases) then remove water through a glycol dehydration process and a mole sieve dehydration process. The facility also recovers natural gas liquids through a cryogenic process.

- B. This facility is located approximately 9.2 miles southwest of Artesia, New Mexico in Eddy County.
- C. This modification consists of increasing the facility's total capacity to 90 MMSCFD of natural gas. Initially the facility will operate the existing TEG dehydration equipment, unit Dehy-2, and the amine units, AU-2 and AU-3. These units will eventually be replaced with the larger TEG dehydration, unit DEHY-1, and the larger amine unit, AU-1. The description of this modification is for informational purposes only and is not enforceable.
- D. Tables 102.A and Table 102.B show the total potential emission rates (PER) from this facility for information only. This is not an enforceable condition and excludes emissions from Minor NSR exempt activities per 20.2.72.202 NMAC.

**Table 102.A: Total Potential Emission Rate (PER) from Entire Facility**

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NO <sub>x</sub> )	89.4
Carbon Monoxide (CO)	87.1
Volatile Organic Compounds (VOC) <sup>1</sup>	75.6
Sulfur Dioxide (SO <sub>2</sub> )	1.1
Particulate Matter 10 microns or less (PM <sub>10</sub> )	7.5
Particulate Matter 2.5 microns or less (PM <sub>2.5</sub> )	7.5

1. VOC total includes emissions from Fugitives, SSM and Malfunctions.

**Table 102.B: Total Potential Emissions Rate (PER) for \*Hazardous Air Pollutants (HAPs) that exceed 1.0 ton per year**

Pollutant	Emissions (tons per year)
Acetaldehyde	1.4
Acrolein	1.0
Formaldehyde	8.1
Total HAPs**	15

\* HAP emissions are already included in the VOC emission total.

\*\* The total HAP emissions may not agree with the sum of individual HAPs because only individual HAPs greater than 1.0 tons per year are listed here.

**A103 Facility: Applicable Regulations**

- A. The permittee shall comply with all applicable sections of the requirements listed in Table 103.A.

**Table 103.A: Applicable Requirements**

<b>Applicable Requirements</b>	<b>Federally Enforceable</b>	<b>Unit No.</b>
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.3 NMAC Ambient Air Quality Standards	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
20.2.61 NMAC Smoke and Visible Emissions	X	ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, H-1, H-2, H-3, H-4, H-5, FL-1, FL-2
20.2.72 NMAC Construction Permit	X	Entire Facility
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.75 NMAC Construction Permit Fees	X	Entire Facility
20.2.77 NMAC New Source Performance Standards	X	H-4, ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, Plant inlet, DEHY-1, AU-2, AU-3, and cryogenic unit, and Compressors associated with ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6
20.2.82 NMAC Maximum Achievable Control Technology Standards for Source Categories of HAPs	X	DEHY-1, DEHY-2, ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, and ENG-6
40 CFR 50 National Ambient Air Quality Standards	X	Entire Facility
40 CFR 60, Subpart A, General Provisions	X	H-4, ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, Plant inlet, DEHY-1, AU-2, AU-3, and cryogenic unit, and Compressors associated with ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6
40 CFR 60, Subpart Dc	X	H-4
40 CFR 60, Subpart JJJJ	X	ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6
40 CFR 60, Subpart KKK	X	Plant inlet, DEHY-1, AU-2, AU-3, and cryogenic unit
40 CFR 60, Subpart OOOOa	X	Compressors associated with ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, Fugitives from DEHY-2, and AU-1
40 CFR 63, Subpart A, General Provisions	X	DEHY-1, DEHY-2, ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, and ENG-6
40 CFR 63, Subpart HH	X	DEHY-1 and DEHY-2

**Table 103.A: Applicable Requirements**

<b>Applicable Requirements</b>	<b>Federally Enforceable</b>	<b>Unit No.</b>
40 CFR 63, Subpart ZZZZ	X	ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6
40 CFR 68 Chemical Accident Prevention	X	Entire Facility

**A104 Facility: Regulated Sources**

- A. Table 104.A lists the emission units authorized for this facility. Emission units identified as exempt activities (as defined in 20.2.72.202 NMAC) and/or equipment not regulated pursuant to the Act are not included.

**Table 104.A: Regulated Sources List**

<b>Unit No.</b>	<b>Source Description</b>	<b>Make</b>	<b>Model</b>	<b>Serial No.</b>	<b>Construction/ Reconstruction Date</b>	<b>Manufacture Date</b>	<b>Rated Capacity/Permitted Capacity</b>
ENG-1	Compressor Engine	Caterpillar	G3606LE	TBD	TBD	TBD	1775 hp
ENG-2	Compressor Engine	Caterpillar	G3606LE	TBD	TBD	TBD	1775 hp
ENG-3	Compressor Engine	Caterpillar	G3606LE	TBD	TBD	TBD	1775 hp
ENG-4	Compressor Engine	Caterpillar	G3606LE	TBD	TBD	TBD	1775 hp
ENG-5	AGI Compressor Engine	AJAX	DPC-2804 LE	TBD	TBD	TBD	800 hp
ENG-6	AGI Compressor Engine	AJAX	DPC-2804 LE	TBD	TBD	TBD	800 hp
AU-2	Amine Unit	Longview Machine Inc.	TAG# C-0701 NB-91	238	1972	Unknown	40 MMSCFD
MSD	Molecular Sieve Dehydration System	Unknown	Unknown	Unknown	Unknown	Unknown	6 MMSCFD
H-1	Amine Regen Heater	Parmac	Unknown	TBD	TBD	TBD	22.4 MMBtu/hr
H-2	TEG Regen Heater	ARC	Unknown	EC-0045-A-3	TBD	TBD	1.5 MMBtu/hr
H-3	Molecular Sieve Regen Heater	TBD	TBD	TBD	TBD	TBD	3.18 MMBtu/hr
H-4	Hot Oil Heater	Entec	4V1-34-4HE-8-12-HF	91674	<2000	<2000	15.5 MMBtu/hr
H-5	Selexol Regenerator Heater	Parmac	Unknown	72-7591	1972	TBD	3.5 MMBtu/hr

**Table 104.A: Regulated Sources List**

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Rated Capacity/Permitted Capacity
DEHY-1	TEG Dehydrator Still Vent	ARC	Unknown	TBD	TBD	TBD	90 MMSCFD
DEHY-2	TEG Dehydrator	Rama	Unknown	2138	5-21-1999	TBD	40 MMSCFD
AU-1	Amine Unit	Parmac	Unknown	TBD	TBD	TBD	90 MMSCGD
AU-3	Selexol Amine Unit	Parmac	Unknown	72-7590	1972	TBD	30 MMSCFD
FUG	Fugitive Emissions	N/A	N/A	N/A	N/A	N/A	N/A
SSM	Startup/Shutdown/Maintenance	N/A	N/A	N/A	N/A	N/A	N/A
Malf	Malfunctions	N/A	N/A	N/A	N/A	N/A	N/A
FL-1	Emergency Flare	John Zink	Unknown	63568	2005	2005	4.5 MMSCFD/6.13 MMSCFY
FL-2	Process Flare	IT McGill	Tag # 30-102-1	765-2	5-21-99	5-21-99	75 MMSCFD/15.6 MMSCFY

1. All TBD (to be determined) units and like-kind engine replacements must be evaluated for applicability to NSPS and MACT requirements.

#### **A105 Facility: Control Equipment**

- A. Table 105 lists all the pollution control equipment required for this facility. Each emission point is identified by the same number that was assigned to it in the permit application.

**Table 105: Control Equipment List:**

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit Number(s) <sup>1</sup>
CAT-1	Catalytic Oxidation	CO, VOC, and HCHO	ENG-1
CAT-2	Catalytic Oxidation	CO, VOC, and HCHO	ENG-2
CAT-3	Catalytic Oxidation	CO, VOC, and HCHO	ENG-3
CAT-4	Catalytic Oxidation	CO, VOC, and HCHO	ENG-4
CAT-5	Catalytic Oxidation	CO, VOC, and HCHO	ENG-5
CAT-6	Catalytic Oxidation	CO, VOC, and HCHO	ENG-6
FL-1	Emergency Flare	VOC, HAP	AGI System
FL-2	Process Flare	VOC, HAP	DEHY-1 and DEHY-2
AGI Well	Acid Gas Injection	VOCs, HAPs, H <sub>2</sub> S and SO <sub>2</sub> /100% Annually <sup>2</sup>	Amine Unit

**Table 105: Control Equipment List:**

<b>Control Equipment Unit No.</b>	<b>Control Description</b>	<b>Pollutant being controlled</b>	<b>Control for Unit Number(s)<sup>1</sup></b>
Condenser	Condenser	VOC, HAP	DEHY-1 and DEHY-2

1. Control for unit number refers to a unit number from the Regulated Equipment List

2. PSD-NM-753-M2 BACT requires 98% control of SO<sub>2</sub> for AU-2 annually. However, the applicant will control all amine units by 100%.

**A106 Facility: Allowable Emissions**

- A. The following Section lists the emission units and their allowable emission limits. (40 CFR 50, 40 CFR 60, Subparts A, JJJJ, KKK, and OOOOa, 40 CFR 63, Subparts A, HH, and ZZZZ, 20.2.72.210.A and B.1 NMAC).

**Table 106.A: Allowable Emissions**

<b>Unit No.</b>	<b>NO<sub>x</sub><sup>1</sup> pph</b>	<b>NO<sub>x</sub><sup>1</sup> tpy</b>	<b>CO pph</b>	<b>CO tpy</b>	<b>VOC pph</b>	<b>VOC tpy</b>	<b>SO<sub>2</sub> pph</b>	<b>SO<sub>2</sub> tpy</b>
ENG-1	2.2	9.4	3.2	14.1	0.9	4.0	<	<
ENG-2	2.2	9.4	3.2	14.1	0.9	4.0	<	<
ENG-3	2.2	9.4	3.2	14.1	0.9	4.0	<	<
ENG-4	2.2	9.4	3.2	14.1	0.9	4.0	<	<
ENG-5	3.5	15.4	1.1	4.6	1.4	6.3	<	<
ENG-6	3.5	15.4	1.1	4.6	1.4	6.3	<	<
H-1	2.2	9.6	1.8	8.1	<	<	<	<
H-2	<	<	<	<	<	<	<	<
H-3	<	1.4	<	1.2	<	<	<	<
H-4	1.5	6.7	1.3	5.6	<	<	<	<
H-5	<	1.5	<	1.3	<	<	<	<
DEH Y-1	-	-	-	-	0	0	-	-

Unit No.	NO <sub>x</sub> <sup>1</sup> pph	NO <sub>x</sub> <sup>1</sup> tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO <sub>2</sub> pph	SO <sub>2</sub> tpy
DEH Y-2	-	-	-	-	0	0	-	-
AU-1	-	-	-	-	0	0	-	-
AU-2	-	-	-	-	0	0	-	-
AU-3	-	-	-	-	0	0	-	-
FL-1 <sup>3</sup>	0.06	0.3	0.3	1.2	0	0	0.004	0.02
FL-2	0.2	0.8	0.8	3.5	1.3	5.7	0.004	0.02
FUG	-	-	-	-	*	20.2	-	-

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO<sub>2</sub>
- 2 For Title V facilities, the Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
- 3 Compliance with emergency flare emission limits is demonstrated by limiting combustion to pilot and/or purge gas only.
- 4 “-” indicates the application represented emissions of this pollutant are not expected.  
“<” indicates that the application represented the uncontrolled mass emission rates are less than 1.0 pph or 1.0 tpy for this emissions unit and this air pollutant. Although modeled at the calculated value, the Department has determined compliance demonstrations of these very small calculated values are either technically or practically infeasible. For limits expressed as “<”, actual emissions in excess of 1.0 pph and 1.0 tpy are excess emissions to be reported per General Condition B110.F.  
“\*” indicates hourly emission limits are not appropriate for this operating situation.
- 5 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110F.

#### **A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM) and Malfunction Emissions**

- A. The maximum allowable SSM and Malfunction emission limits for this facility are listed in Table 107.A and were relied upon by the Department to determine compliance with applicable regulations.

Unit No.	Description	VOC (tpy)
SSM ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, and ENG-6	<sup>1</sup> Compressor & Associated Piping Blowdowns during Routine and Predictable Startup, Shutdown, and/or Maintenance (SSM)	10

Unit No.	Description	VOC (tpy)
M	<sup>1</sup> Venting of Gas Due to Malfunction	10

1. This authorization does not include VOC combustion emissions.
2. To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110F.

B. The authorization of emission limits for startup, shutdown, maintenance, and malfunction does not supersede the requirements to minimize emissions according to General Conditions B101.F and B107.A.

C. SSM Emissions

**Requirement:** The permittee shall perform a facility inlet gas analysis once every year based on a calendar year, and complete the following recordkeeping to demonstrate compliance with routine and predictable startup, shutdown, and maintenance (SSM) emission limits in Table 107.A.

**Monitoring:** The permittee shall monitor the permitted routine and predictable startups and shutdowns and scheduled maintenance events.

**Recordkeeping:**

- (1) To demonstrate compliance, each month records shall be kept of the cumulative total of VOC emissions during the first 12 months due to SSM events and, thereafter of the monthly rolling 12-month total VOC emissions.
- (2) Records shall also be kept of the inlet gas analysis, the percent VOC of the gas based on the most recent gas analysis and of the volume of total gas vented in MMscf used to calculate the VOC emissions due to SSM events.
- (3) The permittee shall record the demonstrated compliance in accordance with Condition B109, except the requirement in B109.C to record the start and end times of SSM events shall not apply to the venting of known quantities of VOC.

**Reporting:** The permittee shall report in accordance with Section B110.

D. Malfunction Emissions

**Requirement:** The permittee shall perform a facility inlet gas analysis once every year based on a calendar year and complete the following recordkeeping to demonstrate compliance with malfunction (M) emission limits in Table 107.A.

**Monitoring:** The permittee shall monitor all malfunction events that result in VOC emissions including identification of the equipment or activity that is the source of emissions.

**Recordkeeping:**

- (1) To demonstrate compliance, each month records shall be kept of the cumulative total of

VOC emissions due to malfunction events during the first 12 months and, thereafter of the monthly rolling 12-month total VOC emissions due to malfunction events.

- (2) Records shall also be kept of the inlet gas analysis, the percent VOC of the gas based on the most recent gas analysis, of the volume of total gas vented in MMscf used to calculate the VOC emissions, and whether the emissions resulting from the event will be used toward the permitted malfunction emission limit or whether the event is reported as excess emissions of the pound per hour limits in Table 106.A (or the pound per hour limits in condition B110F, if applicable), under 20.2.7 NMAC.
- (3) The permittee shall record the demonstrated compliance in accordance with Condition B109, except the requirement in B109.C to record the start and end times of malfunction events shall not apply to the venting of known quantities of VOC.

**Reporting:** The permittee shall report in accordance with Section B110.

#### **A108 Facility: Allowable Operations**

- A. This facility is authorized for continuous operation. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.

#### **A109 Facility: Reporting Schedules**

- A. The permittee shall report according to the Specific Conditions and General Conditions of this permit.

#### **A110 Facility: Fuel and Fuel Sulfur Requirements**

- A. Fuel and Fuel Sulfur Requirements

**Requirement:** All combustion emission units shall combust only natural gas containing no more than **2.0** grains of total sulfur per 100 dry standard cubic feet.

**Monitoring:** No monitoring is required. Compliance is demonstrated through records.

**Recordkeeping:**

- (1) The permittee shall demonstrate compliance with the natural gas or fuel oil limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous or liquid fuel, or fuel gas analysis, specifying the allowable limit or less.
- (2) If fuel gas analysis is used, the analysis shall not be older than one year.
- (3) Alternatively, compliance shall be demonstrated by keeping a receipt or invoice from a commercial fuel supplier, with each fuel delivery, which shall include the delivery date, the fuel type delivered, the amount of fuel delivered, and the maximum sulfur content of

the fuel.

**Reporting:** The permittee shall report in accordance with Section B110.

**A111 Facility: 20.2.61 NMAC Opacity**

- A. 20.2.61 NMAC Opacity Limit (Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, H-1, H-2, H-3, H-4, H-5)

**Requirement:** Visible emissions from all stationary combustion emission stacks shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.

**Monitoring:**

- (1) Use of natural gas fuel constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during operation other than during startup mode, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 9 (EPA Method 9) as required by 20.2.61.114 NMAC, or the operator will be allowed to shut down the equipment to perform maintenance/repair to eliminate the visible emissions. Following completion of equipment maintenance/repair, the operator shall conduct visible emission observations following startup in accordance with the following procedures:
  - (a) Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are observed, no further action is required.
  - (b) If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

For the purposes of this condition, *Startup mode* is defined as the startup period that is described in the facility's startup plan.

**Recordkeeping:**

- (1) If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:
  - (a) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.
  - (b) For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.

**Reporting:** The permittee shall report in accordance with Section B110.

**A112 Facility: Haul Roads** – Not Required

**A113 Facility: Initial Location Requirements** – Not Required

**A114 Facility: Relocation Requirements**

- A. This facility **may not** be relocated.

**A115 Alternative Operating Scenario**

- A. The permittee shall operate this facility in such manner that all applicable requirements and the requirements of 20.2.72 NMAC are met regardless of what scenario the facility is operating under.

**A116 Compliance Plan** – Not Required

**A117 Governing Requirements During Source Construction, Source Removal, and/or Change in Emissions Control** - Not Required

## **EQUIPMENT SPECIFIC REQUIREMENTS**

### **OIL AND GAS INDUSTRY**

**A200 Oil and Gas Industry**

- A. This section has common equipment related to most Oil and Gas Operations.

**A201 Engines**

- A. Initial Compliance Test (Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by performing an initial compliance test.

**Monitoring:** The permittee shall perform an initial compliance test in accordance with the General Testing Requirements of Section B111. Emission testing is required for NO<sub>x</sub> and CO. Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.  
The monitoring exemptions of Section B108 do not apply to this requirement.

For units with g/hp-hr emission limits, the engine load shall be calculated by using the following equation:

$$\text{Load(Hp)} = \frac{\text{Fuel consumption (scfh)} \times \text{Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

**Recordkeeping:** The permittee shall maintain records in accordance with the applicable Sections in B109, B110, and B111.

**Reporting:** The permittee shall report in accordance with the applicable Sections in B109, B110, and B111.

B. Catalytic Converter Operation (Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6)

**Requirement:**

(1) The units shall be equipped and operated with an oxidation catalytic converter to control CO, VOC, and HAP emissions. Engines equipped with oxidation catalysts are not required to operate with an AFR.

The permittee shall maintain the units according to manufacturer's or supplier's recommended maintenance, including replacement of oxygen sensor as necessary for oxygen-based controllers.

**Monitoring:** The unit(s) shall be operated with the catalytic converter, which includes catalyst maintenance periods. During periods of catalyst maintenance, the permittee shall either (1) shut down the engine(s); or (2) replace the catalyst with a functionally equivalent spare to allow the engine to remain in operation.

**Recordkeeping:** The permittee shall maintain records in accordance with Section B109.

**Reporting:** The permittee shall report in accordance with Section B110.

C. Periodic Emissions Testing (Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by completing periodic emission tests during the monitoring period.

**Monitoring:** The permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. Emission testing is required for NOx and CO and shall be carried out as described below.

Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.

For units with g/hp-hr emission limits, in addition to the requirements stated in Section B108, the engine load shall be calculated by using the following equation:

$$\text{Load(Hp)} = \frac{\text{Fuel consumption (scfh)} \times \text{Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

- (1) The testing shall be conducted as follows:
  - (a) Testing frequency shall be once per quarter.
  - (b) The monitoring period is defined as a calendar quarter.
- (2) The first test shall occur within the first monitoring period occurring after permit issuance, or within the first monitoring period after completion of the initial compliance test, if applicable.
- (3) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.
- (4) The permittee shall follow the General Testing Procedures of Section B111.
- (5) Performance testing required by 40 CFR 60, Subpart JJJJ or IIII or 40 CFR 63, Subpart ZZZZ may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.

**Recordkeeping:** The permittee shall maintain records in accordance with Section B109, B110, and B111.

**Reporting:** The permittee shall report in accordance with Section B109, B110, and B111.

D. 40 CFR 60, Subpart JJJJ (Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6)

**Requirement:** The units are subject to 40 CFR 60, Subparts A and JJJJ and shall comply with the notification requirements in Subpart A and the specific requirements of Subpart JJJJ.

**Monitoring:** The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4243.

**Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4245.

**Reporting:** The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4245.

E. 40 CFR 63, Subpart ZZZZ (Units ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6)

**Requirement:** The units are subject to 40 CFR 63, Subpart ZZZZ and the permittee shall comply with all applicable requirements of Subpart A and Subpart ZZZZ.

**Monitoring:** The permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.

**Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.6655 and 63.10.

**Reporting:** The permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart A and ZZZZ, including but not limited to 63.6645, 63.6650, 63.9, and 63.10.

**A202 Glycol Dehydrators****A. Extended Gas Analysis and ProMax calculation (Units DEHY-1 and DEHY-2)**

**Requirement:** The permittee shall demonstrate compliance with the allowable VOC emission limits in Table 106.A by conducting an extended gas analysis on the dehydrator inlet gas annually and by calculating emissions using ProMax.

**Monitoring:** The permittee shall conduct an annual GRI-GlyCalc analysis using the most recent extended gas analysis and verify the input data. The permittee may use a method of calculating dehydrator emissions other than the most current version of ProMax if approved by the Department. Changes in the calculated emissions due solely to a change in the calculation methodology shall not be deemed an exceedance of an emission limit.

**Recordkeeping:** The permittee shall identify in a summary table all parameters that were used as inputs in the ProMax model. The permittee shall keep a record of the results, noting the VOC and HAP emission rates for the dehydrator obtained from estimates using ProMax.

The permittee shall maintain records in accordance with Section B109.

**Reporting:** The permittee shall report in accordance with Section B110.

**B. Glycol pump circulation rate (Units DEHY-1 and DEHY-2)**

**Requirement:** Compliance with the allowable VOC emission limits in Table 106.A shall be demonstrated by monitoring the glycol pump circulation rate for each unit shall not exceed 420 gallons per hour (7 gallons per minute).

**Monitoring:** The permittee shall monitor the circulation rate quarterly, based on a calendar quarter (January 1<sup>st</sup> through March 31<sup>st</sup>, April 1 through June 30<sup>th</sup>, July 1<sup>st</sup> through September 30<sup>th</sup>, and October 1<sup>st</sup> through December 31<sup>st</sup>). Monitoring shall include a calibration or visual inspection of pump rate setting

**Recordkeeping:** The permittee shall maintain records that include a description of the monitoring and are in accordance with Section B109.

**Reporting:** The permittee shall report in accordance with Section B110.

**C. Control Device Inspection (Units DEHY-1 and DEHY-2, H-2, Condenser, and FL-2)**

**Requirement:** To demonstrate compliance with the allowable VOC emission limits in Table 106.A:

(1) The still vent emissions (Units DEHY-1 and DEHY-2) shall be routed at all times to the condenser.

(2) All non-condensed hydrocarbon vapor emissions shall be routed directly to the flare (FL-2) and destroyed.

(3) The flash tank vents (DEHY-1 and DEHY-2) and regenerator unit (H-2) shall be routed to the unit (FL-2) at all times, and not vented to the atmosphere.

**Monitoring:** The permittee shall inspect the glycol dehydrator and the control equipment semi-annually to ensure it is operating as initially designed or in accordance with the manufacturer's

recommended procedures.
<b>Recordkeeping:</b> The permittee shall record the inspection and the results of all equipment and control device inspections chronologically, noting any maintenance or repairs needed to bring the dehydrator into compliance. The permittee shall maintain a copy of the manufacturer's maintenance recommendations.
The permittee shall maintain records in accordance with Section B109.
<b>Reporting:</b> The permittee shall report in accordance with Section B110.

D. 40 CFR 63, Subpart HH (DEHY-1 and DEHY-2)

<b>Requirement:</b> The units are subject to 40 CFR 63, Subpart HH and the permittee shall comply with all applicable requirements.
<b>Monitoring:</b> The permittee shall monitor as required by 40 CFR 63.772(b)(2) to demonstrate facility is exempt from general standards.
<b>Recordkeeping:</b> The permittee shall generate and maintain the records required by 40 CFR 63.774(d)(1)(ii) to demonstrate compliance with the general standard exemptions found in 40 CFR 63.764(e).
The permittee shall maintain records in accordance with Section B109.
<b>Reporting:</b> The permittee shall meet all applicable reporting in 40 CFR 63, Subparts A and HH and in Section B110.

E. Gas Throughput (DEHY-1 and DEHY-2)

<b>Requirement:</b> Compliance with the allowable VOC emission limits in Table 106.A shall be demonstrated by, the units inlet gas stream shall not exceed 90 MMscf/day, combined. The permittee shall install and maintain a flow meter that measures the flow rate of gas into or out of the dehydrators.
<b>Monitoring:</b> The permittee shall monitor the natural gas flow rate daily (in units of MMscf/day).
<b>Recordkeeping:</b> The permittee shall record the daily total of natural gas throughput each day in units of MMscf/day and in accordance with Section B109.
<b>Reporting:</b> The permittee shall report in accordance with Section B110.

**A203 Tanks – Not Required**

**A204 Heaters/Boilers**

A. Operational Inspections of Boilers and/or Heaters (Units H-1, H-3, H-4 and H-5)

<b>Requirement:</b>
(1) Compliance with the allowable emission limits in Table 106.A shall be demonstrated by performing annual inspections to ensure proper operation of the Unit.
(2) At a minimum, the operational inspections shall meet those recommended by the manufacturer, or shall meet the facility specific procedure submitted to the Department.

<p>(3) If the permittee is using a facility specific procedure it shall submit an electronic version of the procedure to the Department's Permit Section Manager within 90 days of implementing the procedure. If the plan cannot be submitted within 90 days, the permittee shall obtain written approval to extend the deadline from the Department's Permit Section, either by regular or electronic mail. The permittee shall provide additional information or make changes to the plan as requested by the Department.</p> <p>(4) The permittee shall make changes or improvements to the inspection procedure based on experience with the unit and/or new information provided by the manufacturer. This updated procedure shall be made available to the Department upon request.</p>
<p><b>Monitoring:</b></p> <p>(1) Inspections shall be completed at least once per year or at the frequency recommended by the manufacturer.</p> <p>(2) At a minimum, inspections shall include the following:</p> <ul style="list-style-type: none"> <li>(a) checking indicators to verify that the optimal amount of excess combustion air is introduced into the boiler combustion process such as a blue colored, steady flame;</li> <li>(b) inspections of the unit(s) components and housing for cracks or worn parts.</li> </ul>
<p><b>Recordkeeping:</b></p> <p>(1) The permittee shall maintain records of operational inspections, including the indicators used to verify optimal excess combustion air, a description of the indicators, the unit component and housing inspections, and any adjustments needed to ensure optimal operation of the unit.</p> <p>(2) The permittee shall also keep records of the manufacturer's recommended or the permittee's facility specific operational inspection procedure and shall keep records of the percent of excess combustion air required for optimal performance.</p> <p>(3) The permittee shall maintain records in accordance with Section B109.</p>
<p><b>Reporting:</b> The permittee shall report in accordance with Section B110.</p>

B. 40 CFR 60, Subpart Dc (Unit H-4)

<p><b>Requirement:</b> The unit is subject to 40 CFR 60, Subpart Dc and the permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A and Subpart Dc.</p>
<p><b>Monitoring:</b> The permittee shall comply with all applicable monitoring and testing requirements of 40 CFR 60, Subpart Dc.</p>
<p><b>Recordkeeping:</b> The permittee shall comply with the recordkeeping requirements of 40 CFR 60.48c.</p>
<p><b>Reporting:</b> The permittee shall comply with the reporting requirements of 40 CFR 60.48c and the Section B110 of the permit.</p>

**A205 Turbines – Not Required****A206 Flares****A. Flare Flame & Visible Emissions (20.2.61 NMAC) (Unit FL-1 and FL-2)**

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by the flare being equipped with a system to ensure that it is operated with a flame present at all times and operated with no visible emissions.

The flare is subject to the 20% opacity standards in 20.2.61 NMAC and complying with the no visible emissions requirements demonstrates compliance with 20.2.61 NMAC opacity limit.

**Monitoring:**

- (1) Flare Pilot Flame:** The permittee shall continuously monitor the presence of a flare pilot flame using a thermocouple or any equivalent device approved by the Department and shall be equipped with a continuous recorder and alarm or equivalent, to detect the presence of a flame.
- (2) Visible Emissions:** Annually, the permittee shall conduct a visible emissions observation in accordance with the requirements at 40 CFR 60, Appendix A, Reference Method 22 to certify compliance with the no visible emission requirement on the process flare. The observation period is at least 2 consecutive hours where visible emissions are not to exceed a total of 5 minutes during any 2 consecutive hours.

At least once per year, during a shutdown event, the permittee shall conduct a visible emissions observation in accordance with the requirements at 40 CFR 60, Appendix A, Reference Method 22 to certify compliance with the no visible emission requirements. Each Method 22 test shall occur for the duration of the shutdown event or for 30 minutes, whichever is less. Visible emissions shall not occur for more than 5 minutes during any consecutive 30-minute period. For shutdown events that occur for less than 30 minutes, visible emissions shall not occur for more the 15% during the duration of the shutdown event.

If the flare is located at an unmanned site, used only for emergencies, and where there are no scheduled shutdown maintenance events to observe flare combustion, the permittee shall at a minimum conduct the visible emissions observation in accordance with the requirements of EPA Method 22 on the pilot flame.

**Recordkeeping:**

- (1) Flare Pilot Flame:** The permittee shall record all instances of alarm activation, including the date and cause of alarm activation, actions taken to bring the flare into normal operating conditions, and maintenance activities.
- (2) Visible Emissions:** For any visible emissions observations conducted in accordance with EPA Method 22, the permittee shall record the information on the form referenced in EPA Method 22, Section 11.2.

For any visible emissions observations, conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2. If the visible emissions observation was conducted only on the pilot flame, the record shall also include the reasons that the test could not be conducted during a shutdown event.

The permittee shall maintain records in accordance with Section B109.

**Reporting:** The permittee shall report in accordance with Section B110.

**B. Flare Operation Requirement (Unit FL-1 and FL-2)**

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by installing, operating, and maintaining the flare in accordance with the manufacturer's specifications. Compliance with the operating practices according to the manufacturer's specifications demonstrates compliance with the opacity limits required by 20.2.61 NMAC.

**Monitoring:** The permittee shall inspect the flare monthly to ensure it is operating in accordance with the manufacturer's specifications.

**Recordkeeping:** The permittee shall maintain the following records in accordance with Section B109.

- (1) Record, chronologically, the name of the person conducting the inspection, the results of all equipment inspections, and any maintenance or repairs needed for the flare(s) to be compliant.

- (a) Maintain a copy of the manufacturer's maintenance recommendations.

**Reporting:** The permittee shall report in accordance with Section B110.

**C. Flare Gas Flow Monitoring and Gas Analysis (Unit FL-1 and FL-2)**

**Requirement:** Compliance with the flare allowable emission limits in Table 106.A shall be demonstrated by completing the monitoring, recordkeeping, and reporting required by this condition and Condition A206.D. All flow meters and inline monitors shall meet the minimum data capture and quality assurance requirements of Condition B108. H.

**Monitoring:**

**(1) Gas Flow Monitoring:**

- (a) One or more gas flowmeters equipped with a chart recorder or data logger (electronic storage) shall be installed to continuously monitor the flow (scf) of gas sent to the flare.
- (b) Pilot, purge, and assist gas, if applicable, shall be monitored using a gas flowmeter under (a) or determined using manufacturer's specifications or engineering estimates. If purge gas cannot be metered independently, it shall be calculated in the flare flow meters in the common flare header.

**(2) Gas Analysis:**

- (a) Once per calendar year, the permittee shall perform a gas analysis, including measurement of the H<sub>2</sub>S content, total sulfur content, VOC content, and heating value (BTU/scf) of gas sent to the flare for combustion. Gas analyses shall be separated by a minimum of six (6) months.
- (b) Alternatively, for H<sub>2</sub>S only, in lieu of an annual analysis, H<sub>2</sub>S may be measured quarterly using a stain tube(s) of the appropriate size range or with an inline chemical composition analyzer.

- (3) Calibration:** Flow meters and inline monitors shall be operated, calibrated, and maintained as specified by Condition B108.H and, if applicable, the site-specific operations and maintenance plan.

**Recordkeeping:** The following records shall be maintained in accordance with Condition B109.

**(1) Gas Flow:**

- (a) Records of continuous flowmeter measurements and the hourly flow rate in scf/hr calculated by averaging *a minimum* of four (4) equally spaced readings for each hour.
- (b) Manufacturer's specifications or engineering estimates used for pilot, purge, and assist (if applicable) gas flow rates.

**(2) Gas Analysis:** All sample documentation received from the laboratory or testing service company, including H<sub>2</sub>S content, the total sulfur content, the VOC content, and the heating value (BTU/scf), analysis method utilized, and sample chain of custody. If stain tubes are used for measuring H<sub>2</sub>S content, records of the results, including size range of stain tubes used, the date of the test, and the name of the person conducting the test.

**(3) Calibration:** Records of all flowmeter and inline monitor certifications, calibrations, data capture calculations and documentation as specified by Condition B108.H, as well as any breakdowns, reasons for the breakdown, and corrective actions. The permittee shall also maintain a copy of the manufacturer specifications for operation and calibration or the site-specific operations and maintenance plan for flowmeters and inline monitors.

**Reporting:** The permittee shall report in accordance with Condition B110.

**D. Flare Parametric Monitoring (Unit FL-1 and FL-2)**

**Requirement:** The permittee shall operate the flare in accordance with the requirements specified in recordkeeping below.

**Monitoring:** The permittee shall monitor the flare in accordance with Conditions A.206.A - D.

**Recordkeeping:**

- (1) The permittee shall use the information recorded in Condition A.206.C to calculate the flow rate to determine if the facility meets the velocity requirements of this Condition.
- (2) The maximum tip velocity of the flare, (V<sub>max</sub>), shall be determined annually, and records kept demonstrating that the actual flare tip velocity does not exceed the allowable V<sub>max</sub>. The maximum permitted velocity (i.e., the greater of either calculated V<sub>max</sub>, 60 ft/sec or 400 ft/sec, based on method (a), (b), or (c) below) shall be recorded as feet/second and the corresponding total flow rate to the flare in MMscf/hour shall be used to compare to the actual volumetric flow rate (at STP) to demonstrate compliance with the maximum velocity permitted.

Compliance shall be determined utilizing either method (a), (b), or (c) below:

- (a) Actual tip velocity less than 60 feet per second (ft/sec) for gases having a lower heating value less than 1000 Btu/ft<sup>3</sup> will be in compliance with this requirement.
- (b) Actual tip velocity less than 400 ft/sec for gases having a lower heating value greater than 1000 Btu/ft<sup>3</sup> will be in compliance with this requirement.
- (c) Actual tip velocity less than the calculated maximum velocity (V<sub>max</sub>) using the following equations will be in compliance with this requirement. The calculated V<sub>max</sub> shall be based on the weighted mean heating value of the inlet gas plus supplemental fuel gas.

V<sub>max</sub> of the flare shall be calculated annually and determined using the following equation:

$$\text{Log}10 (V_{\max}) = (HT + 28.8)/31.7$$

$V_{\max}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

HT = The net heating value is determined using the following equation:

$$H_T = K \left[ \sum_{i=1}^n C_i H_i \right]$$

where:

$H_T$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off-gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant}, 1.740 \times 10^{-7} \left( \frac{1}{\text{ppm}} \right) \left( \frac{\text{g mole}}{\text{scm}} \right) \left( \frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for  $\left( \frac{\text{g mole}}{\text{scm}} \right)$  is 20°C;

$C_i$  = Concentration of sample component “i” in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994); and

$H_i$  = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95

The maximum permitted velocity,  $V_{\max}$ , for air-assisted flares shall be determined by the following equation:

$$V_{\max} = 8.706 + 0.7084 (HT)$$

$V_{\max}$  = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

$H_T$  = The net heating value as determined above.

(3) The permittee shall maintain records in accordance with Section B109.

**Reporting:** The permittee shall report in accordance with Section B110.

#### E. Flaring Process Emissions (FL-1 and FL-2)

**Requirement:** To demonstrate compliance with the allowable emission limits in Table 106.A, a gas flowmeter and flow totalizer shall be installed and the permittee shall calculate and summarize the emission rates as required in monitoring and recordkeeping. The maximum amount of total sulfur ( $\text{H}_2\text{S}$  and mercaptans) sent to the flare hourly and annually shall be limited to the amount of sulfur that ensures the pound per hour and ton per year  $\text{SO}_2$  and  $\text{H}_2\text{S}$  emission limits in Table 106.A

are not exceeded. To meet emission limits, the permittee shall adjust the flowrate of the facility inlet feedstock gas to account for fluctuations of total sulfur in the feedstock gas. The permittee shall perform a gas analysis at the facility inlet once every year.

FL-1 shall be designed and operated to achieve no less than 100% conversion of total sulfur to sulfur dioxide. FL-1 (while flaring) is not permitted to have emissions of NO<sub>x</sub>, CO, and VOC and any such emissions shall be reported under 20.2.7 NMAC.

**Monitoring:** The following shall be performed:

- 1) A gas flowmeter and flow totalizer, equipped with a chart recorder or data logger (electronic storage), shall be installed in the flare line to measure and record the total standard cubic feet (scf) of gas sent to the flare during each hour and each month.
- 2) The permittee shall measure the H<sub>2</sub>S content, the total sulfur content, the VOC content, and the heating value (Btu/scf) of the gas sent to the flare for combustion.
- 3) H<sub>2</sub>S shall be measured at least once for each flaring event, and at least once every 24 hours (during flaring events) using an inline H<sub>2</sub>S monitor or monitor H<sub>2</sub>S content from the inlet analyzer.
- 4) The total sulfur content, VOC content, and heating value (Btu/scf) of the natural gas sent to the flare shall be measured at least once annually with an extended gas analysis.

The flow meter, totalizer, and the inline monitor shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

**Recordkeeping:** The following records shall be kept:

- inline H<sub>2</sub>S measurements
- annual extended gas analyses
- hourly and monthly flowmeter and flow totalizer measurements of gas sent to the flare

Each month, the permittee shall record and summarize in a table format the following.

- H<sub>2</sub>S and the total sulfur content (gr/100scf or ppmv)
- percent VOC content
- gas heating value (Btu/scf)
- the maximum hourly gas flow rate (scf/hr) that occurred during the month
- the hourly gas flow rate (scf/hr) for any hours that exceeded any pph emission limit during the month
- the total month's scf of gas sent to the flare
- during the first 12-months of monitoring, the cumulative total of gas sent to the flare (scf/yr), the cumulative total of SO<sub>2</sub> emitted (tpy), and the cumulative total of H<sub>2</sub>S emitted (tpy)
- after the first 12-months of monitoring, the monthly rolling 12-month total of gas sent to the flare (scf/yr), the monthly rolling 12-month total of SO<sub>2</sub> emitted (tpy), and the monthly rolling 12-month total of H<sub>2</sub>S emitted (tpy).

Each month, the permittee shall record all routine and predictable startups, shutdowns, and

scheduled maintenance events and shall also meet the recordkeeping requirements in General Condition B109 of this permit, except the requirement to record the start and end times of SSM events shall not apply.

Records of flowmeter, totalizer, and inline monitor certifications, calibrations, breakdowns, reasons for the breakdown, and corrective actions taken shall be maintained.

Each month to demonstrate compliance with emission limits, the permittee shall calculate and summarize the maximum pph emission rate, any pph emission rate exceeding the permitted limits (for both AOS2 and AOS3), and the ton per year emission rates of SO<sub>2</sub> and H<sub>2</sub>S, and using the following information:

- the H<sub>2</sub>S content, total sulfur content, VOC content, and the gas heating value (MMBtu/scf) from the most recent H<sub>2</sub>S measurements and gas analyses
- the emission factors used in calculations
- the maximum hourly gas flow rate (scf/hr)
- the hourly gas flow rate (scf/hr) for any hours that exceeded any pph emission limit during the month
- during the first 12 months of monitoring, the cumulative total of gas sent to the flare (scf/yr), the cumulative total of SO<sub>2</sub> emitted (tpy), and the cumulative total of H<sub>2</sub>S emitted (tpy)
- after the first 12 months of monitoring, the monthly rolling 12-month total of gas sent to the flare (scf/yr), the monthly rolling 12-month total of SO<sub>2</sub> emitted (tpy), and the monthly rolling 12-month total of H<sub>2</sub>S emitted (tpy).

**Reporting:** The permittee shall report according to Condition B110.

#### A207 Sulfur Recovery Unit – Not Required

#### A208 Amine Unit

##### A. Amine Unit Control (Unit AU-1, AU-2, AU-3, Acid Gas Injection System, and FL-1)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by:

1. Ensuring that the vent streams from the amine units (AU-1, AU-2, and AU-3) shall at all times be routed to and controlled with acid gas injection (AGI) or the acid gas flare FL-1 and shall at no time be vented to the atmosphere.
2. Unit FL-1 is to be used only during upset of the AGI system.
3. The amine unit flash tank off-gases shall not be released directly to the atmosphere and shall at all times be re-routed to an inlet or other process stream within the facility.
4. Amine units and its associated equipment must achieve a continuous and permanent daily rolling, annual average, minimum 100% control efficiency in reducing SO<sub>2</sub> emissions.

**Monitoring:**

1. The permittee shall inspect the amine units and associated control equipment semi-annually to

ensure they are controlled as required and operating in accordance with the manufacturer's recommended operating and maintenance procedures.

2. A gas flowmeter and flow totalizer shall be installed at the facility inlet, prior to entering the amine units. The flowmeter shall measure the total standard cubic feet per hour of feedstock gas entering the facility.
3. An H<sub>2</sub>S inline monitor shall be installed at the facility inlet to measure the H<sub>2</sub>S content (in gr/100scf or ppmv) of the feedstock gas entering the facility. H<sub>2</sub>S shall be measured at a minimum of once every 24-hours.
4. At least monthly, a total sulfur extended gas analysis to measure mercaptans shall be completed on the feedstock gas at the facility inlet.

The flow meter, totalizer, and inline monitor shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

As a closed loop system, when treated gas that is exiting the amine system is sent to the AGI, and simultaneously no gas (other than pilot gas) is going to the flare (FL-1), then sulfur emissions to must be controlled by 100%.

**Recordkeeping:**

1. The permittee shall keep records of the continuous monitoring of the gas flow rate (MMscf/day) entering the amine contactors.
2. The permittee shall record the results of all equipment and control device inspections chronologically, noting any maintenance or repairs needed to bring the units into compliance.
3. The permittee shall maintain a copy of the manufacturer's maintenance recommendations.

The permittee shall keep chronological records of the gas flow meter certifications, calibrations, all breakdowns in the monitoring equipment, reasons for the breakdown, and corrective measures taken.

The permittee shall maintain records in accordance with Section B109.

**Reporting:** The permittee shall report in accordance with Section B110.

## **A209 Fugitives**

- A. 40 CFR 60, Subpart KKK Leak Detection and Repair Program (Plant inlet, DEHY-1, AU-2, AU-3, and cryogenic unit)

**Requirement:** The facility is subject to 40 CFR Part 60, Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants and shall comply with all applicable requirements in Subparts A and KKK.

**Monitoring:** A volatile organic compound (VOC) leak detection, monitoring, and repair program shall be implemented for all the applicable equipment at the facility, and affected

facilities in VOC service or in wet gas service as defined by 40 CFR 60, Subpart KKK.
<b>Recordkeeping:</b> The permittee shall meet all applicable recordkeeping requirements in 40 CFR 60.635 and 60.486
<b>Reporting:</b> The permittee shall meet all applicable recordkeeping requirements in 40 CFR 60.636 and 60.487.

## **A210 Acid Gas Injection**

### **A. Acid Gas Injection System (Unit AGI)**

**Requirement:** Compliance with allowable emission limits in Table 106.A shall be demonstrated by:

1. The permittee shall monitor the acid gas flowrate from amine units, acid gas flowrate into the amine units, and the acid gas flowrate injected into the AGI well or Acid Gas Flare (FL-1). The Unit FL-1 may only operate during emergencies. Emissions other than pilot emissions shall be reported in accordance with 20.2.7 NMAC.
2. The required flowmeter locations are at the discharge line of the amine units, inlet to plant inlet, and at the AGI well. The acid gas injection system (AGI) shall be used to control acid gas emissions from the facility in accordance with the 100% SO<sub>2</sub> control efficiency (BACT) required for the amine units. The BACT required efficiency is 98%, however emission calculations are presented at 100% control efficiency.
3. The permittee shall monitor the pressure into the AGI well to ensure proper injection of the acid gas stream from the amine unit.
4. The permittee shall ensure that the acid gas from the still vent and regenerator of amine unit is injected into an AGI well or flared by the emergency flare FL-1 (only during emergencies) and not emitted directly to the atmosphere.
5. The permittee shall install, maintain, and operate AGI well with redundant compressors ENG-5 and ENG-6.
6. At all times, except for scheduled maintenance of a single compressor, the redundant compressor shall be operationally available to inject acid gas into the AGI well.
7. At all times, either ENG-5 and ENG-6 shall be available to accept the entire acid gas stream during maintenance of or failure of the operating compressor.
8. If, at any time, the NMOCD requests a radio-tracer study of the permittee's AGI well, the permittee shall notify the Department of the request. The results of the study shall be made available to the Department upon request.

### **Monitoring:**

1. The permittee shall continually monitor the flowrate of acid gas: coming from the amine units, and the flowrate of acid gas being injected into the AGI well.
2. The discharge pressure (psig) of the acid gas compressor and at the wellhead shall be monitored continuously by pressure transducers to verify that the pressure differential between the wellhead and the compressor discharge are a positive value.
3. The AGI well shall be inspected and maintained.
4. The AGI compressors (ENG-5 and ENG-6) shall be inspected and maintained in

<p>accordance with the manufacturer's recommendations, or owner/operator maintenance plan.</p> <p>5. The AGI well system infrastructure from the amine units to the AGI wellhead shall be continuously monitored with a stationary H<sub>2</sub>S detection system.</p>
<p><b>Recordkeeping:</b></p> <ol style="list-style-type: none"> <li>1. The permittee shall record the AGI wellhead pressures continuously.</li> <li>2. Each day the permittee shall record the hours of operation of the AGI well into which acid gas is injected.</li> <li>3. Each day, the permittee shall record the unit number(s) and hours of each operating AGI compressor(s) in service</li> <li>4. Records of dates and results of infrastructure inspections, dates and maintenance actions conducted on the compressors and wellhead, and the target compressor and wellhead pressures, along with the manufacturer's recommended maintenance or owner/operator maintenance plan, shall be maintained and made available to the Department upon request.</li> <li>5. The permittee shall maintain copies of the monthly NMOCD Form C-115 Reports.</li> </ol> <p>The permittee shall maintain records in accordance with Section B109.</p> <p><b>Reporting:</b> Permittee shall report according to Section B110.</p>

B. Operation of Acid Gas Injection Well System (Units Unit AU-1, AU-2, AU-3, Acid Gas Injection System, and FL-1)

<p><b>Requirement:</b> Compliance with the allowable emission limits in Table 106.A shall be demonstrated for Amine unit (AM-01) by meeting the following Acid Gas Injection (AGI) well system requirements:</p> <ol style="list-style-type: none"> <li>(1) At all times, the entire off-gas stream from amine units shall be routed to and controlled with the AGI well.</li> <li>(2) At all times, total volume and flow of acid gas from the amine units shall be properly injected into the AGI well.</li> <li>(3) Backflow of acid gas from the AGI well to FL-1 is not permitted except during emergencies. These emissions shall be reported in accordance with 20.2.7 NMAC.</li> </ol>
<p><b>Monitoring:</b></p> <ol style="list-style-type: none"> <li>(1) The permittee shall monitor when the AGI well goes offline, the duration of time that the AGI well is offline, and when the offline AGI well comes back online.</li> <li>(2) The permittee shall continuously monitor with a flowmeter and totalizer: <ol style="list-style-type: none"> <li>(a) The flow and volume of acid gases injected into the AGI well, and</li> <li>(b) The flow and volume of acid gases sent to Acid Gas Flare from the Amine unit.</li> </ol> </li> <li>(3) To ensure correct and accurate readings, the flowmeter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or owner/operator plan, in accordance with Section B108, and as necessary.</li> </ol>

**Recordkeeping:** The permittee shall maintain records of:

- (1) AGI well, date and time the AGI well goes offline, duration of time the AGI well is offline, and date and time the offline AGI well is back online.
- (2) Date, start and end times, duration, flow, and volume (MMscf) of Amine unit off-gases to AGI well. Volume of acid gas injected into the AGI well shall be measured once per hour.
- (3) Each calendar year, record the total acid gas injected (tpy) into the AGI well.
- (4) Date, start and end times, duration, flow, and volume of amine off-gases to FL-1.
- (5) Flowmeter and totalizer calibrations and maintenance.
- (6) The monthly NMOCD Form C-115 Reports.

**Reporting:** The permittee shall report in accordance with the requirements of Section B110.

#### **A211 Miscellaneous**

- A. 40 CFR 60, Subpart OOOOa (Reciprocating Compressors associated with ENG-1, ENG-2, ENG-3, ENG-4, ENG-5, ENG-6, AU-1, DEHY-2)

**Requirement:** Reciprocating compressors, will be subject to 40 CFR 60, Subparts A and OOOOa if the source is constructed, modified, or reconstructed after the applicability date in 40 CFR 60.5365a and the permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart OOOOa, including standards in 60.5385a.

**Monitoring:** The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to 60.5410a and 60.5415a.

**Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to 60.5420a.

**Reporting:** The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to 60.5420a, and Section B110.

#### **PART B GENERAL CONDITIONS (Attached)**

#### **PART C MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)**